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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,884	04/17/2002	Yvette Lienart	USB 98 BC CNR PHY/cdm-kb	8604
466	7590	03/14/2005	EXAMINER MCINTOSH III, TRAVISS C	
YOUNG & THOMPSON 745 SOUTH 23RD STREET 2ND FLOOR ARLINGTON, VA 22202			ART UNIT 1623	PAPER NUMBER

DATE MAILED: 03/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/018,884

Applicant(s)

LIENART ET AL.

Examiner

Traviss C. McIntosh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-33 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 27-33 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

The Amendment filed December 23, 2004 has been received, entered into the record, and carefully considered. The following information provided in the amendment affects the instant application by:

Claims 31-33 have been amended.

Claims 1-26 and 34 are canceled.

Remarks drawn to rejections of Office Action mailed July 23, 2004 include:

Claim objections: which have been overcome by applicant's amendments and have been withdrawn.

112 2nd paragraph rejections: which have been overcome by applicant's amendments and have been withdrawn.

102(b) rejections: which have been maintained for reasons of record.

103(a) rejections: which have been maintained for reasons of record.

An action on the merits of claims 27-33 is contained herein below. The text of those sections of Title 35, US Code which are not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102/103

The rejection of claims 27-33 under 35 U.S.C. 102(b) as being anticipated by Adachi et al. (US Patent 5,588,254), is maintained for reasons of record.

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Claim 27 is drawn to a method of protecting plants (a phytosanitary method) comprising applying to the plant a composition comprising a 1,3 β -D-glucanase amplifying effective amount of oligo 1,4 β -D-mannuronans. Claim 28 provides that the oligo 1,4 β -D-mannuronans have a DP of less than 30, and claim 29 provides the DP is between 2 and 15. Claim 30 is drawn to a method of treating plants (a biofertilizing method) comprising applying to the plant a 1,4- β -D-mannuronan. Claim 31 provides that the oligo 1,4 β -D-mannuronans have a DP of less than 30, claim 32 provides the DP is between 2 and 15, and claim 33 limits the DP of the 1,4- β -D-mannuronan to 4.

Adachi et al. disclose alginic acid oligosaccharides which when hydrolyzed produce an oligosaccharide comprising 2-20 molecules of guluronic acid only (a DP of 2-20), 2-20 molecules of mannuronic acid only (a DP of 2-20), or 2-20 molecules total of the combination of guluronic acid and mannuronic acid (column 2, lines 33-45). The hydrolyzed oligosaccharides of Adachi et al. are taught to be effective as growth accelerators for plants (column 1, lines 8-15). Adachi et al. hydrolyze the alginic acid oligosaccharide in the same manner as applicants, using an enzyme such as alginic acid lyase, and disclose that oligosaccharides with a low DP are produced (having a DP of 2-20). Since the Office does not have the facilities for preparing the claimed materials and comparing them with prior art inventions, the burden is on Applicant to show a novel or unobvious difference between the claimed method using the claimed product and the product of the prior art. See *In re Best*, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977) and *In re Fitzgerald et al.*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980). Adachi et al. disclose a method of applying the same compounds to the same population in the same amounts, and thus inherently disclose the methods as instantly claimed.

Applicants argue that Adachi et al. is drawn to fail to accelerating growth of plants, and does not disclose or suggest the use of the compounds in the phytosanitary and biofertilizing methods as instantly claimed. Applicants state that the method of Adachi et al. is not specifically linked to the glucanase and endotransglycolase enzymes, and thus Adachi et al. does not suggest or disclose the claimed invention. However, as set forth supra, Adachi et al. administers the same compound to the same population in the same amounts, and thus the method of Adachi et al. must have inherently produced the same results as applicants are claiming, as the results are directly related to the method as practiced, and since the methods are the same, then one would expect the results to be the same. Moreover, Adachi et al. is clearly drawn to accelerating the growth of plants, which is seen to be a biofertilizing method as in claims 30-33 of the instant application. It is noted that if Adachi et al., having taken the manipulative steps described therein, had attempted to measure for the results as described in the instant application, Adachi would have uncovered those results, as they are directly correlative to the method as practiced by Adachi. Applicant's discovery of differing effects of a prior art method does not give the discoverer a right to exclude others from practicing the prior arts method of applying alginic acid decomposition products (i.e., oligo 1,4 β -D-mannuronans having a DP of 2-20) to plants, as the prior arts method would have inherently performed the method as instantly claimed. See Ex Parte Novitski, 26 USPQ 2d (BNA) 1389.

The rejection of claims 27-33 under 35 U.S.C. 102(b) as being anticipated Kaisha (JP 4335839) is maintained for reasons of record.

Kaisha disclose a method of culturing a plant tissue or cell comprising adding an alginic acid oligosaccharide which comprises oligosaccharides with a degree of polymerization of 2-20 and containing guluronic acid and/or mannuronic acid to a culture medium (abstract) which improves production efficiency of artificial seeds or seedlings of farm gardening crops.

Applicants argue that Kaisha et al. fail to disclose applying a glucanase or endotransglycolase amplifying amount of the oligo 1,4 β -D-mannuronans, and thus the methods as instantly claimed cannot be anticipated. However, the examiner would like to note that Kaisha's methodological steps of administering oligosaccharides to plants would have inherently performed the method as instantly claimed. It is noted that if Kaisha et al., having taken the manipulative steps described therein, had attempted to measure for the results as described in the instant application, Kaisha would have uncovered those results, as they are directly correlative to the method as practiced by Kaisha.

Applicant's discovery of differing effects of a prior art method does not give the discoverer a right to exclude others from practicing the prior arts method of applying alginic acid decomposition products (i.e., oligo 1,4 β -D-mannuronans having a DP of 2-20) to plants, as the prior arts method would have inherently performed the method as instantly claimed. See *Ex Parte Novitski*, 26 USPQ 2d (BNA) 1389. It is noted that claims are unpatentable where the prior art process of applying the chemical is the same, notwithstanding applicant's different purpose for application of the compound. See *In re Kirby*, 40 USPQ 368.

Applicants additionally argue that neither Adachi et al. nor Kaisha et al. inherently teach the claimed method as inherency must be a certain result. Applicants state that neither Adachi et al. nor Kaisha et al. actually take or suggest the necessary steps to arrive at the claimed

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invention. Applicants state that the prior art's methods are drawn to accelerating the growth of plants, and the methods of the instant application are drawn to other methods, such as protection and adaptation. However, the examiner notes that the *steps* of the prior arts methods are the same as those in the instant application. The prior art taught to apply the same compound to the same population in the same amounts, and thus the prior art's method would be expected to produce the same results as those instantly claimed.

Claims 27-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Shigematsu et al. (US Patent 4,226,855).

Shigematsu et al. disclose methods of protecting plants from viral disease by applying depolymerized alginic acid to plants (see abstract and preparation example 2, for example). Depolymerized alginic acid is known to comprise oligomers of 1,4 β -D-mannuronan having various DP. Since the Office does not have the facilities for preparing the claimed materials and comparing them with prior art inventions, the burden is on Applicant to show a novel or unobvious difference between the claimed method using the claimed product and the product of the prior art. See *In re Best*, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977) and *In re Fitzgerald et al.*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980). Shigematsu et al. is seen to administer the same compound to the same population to achieve the same result, and thus anticipates the claims of the instant application.

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Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Traviss C. McIntosh whose telephone number is 571-272-0657.

The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson can be reached on 571-272-0661. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Traviss C. McIntosh III
March 2, 2005

 James O. Wilson
Supervisory Patent Examiner
Art Unit 1623


BRUCE KIFLE, PH.D.
PRIMARY EXAMINER